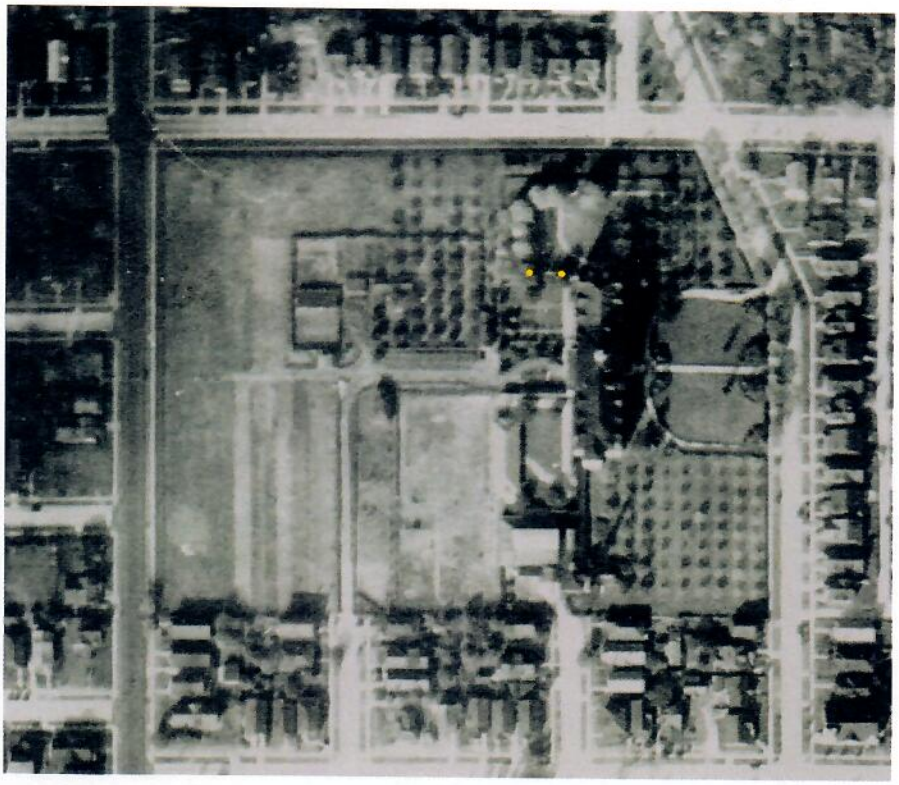
Good Shepherd Center Replanting Proposal

Date: 11/3/2020
To: Landmarks Preservation Board
From: Tara Macdonald, Lead Gardener for Historic Seattle, PDA – Good Shepherd Center
Subject: Hazard tree replacement proposal for Good Shepherd Center
Address: 4649 Sunnyside Ave N, Seattle, WA 98103
Parcel #: 0825049102

Reason:
Two of our old horse chestnuts, *Aesculus hippocastanum*, have or are succumbing to *Kretzschmaria deusta* and other fungi and are now considered too hazardous to keep. Please see Arborist Report for a more thorough analysis. Due to their deteriorating condition, both trees should be removed to eliminate the hazard they present to the surrounding buildings, site users, and gardens. According the Seattle Executive Order: 03-05 we need to replace these trees at a 2:1 ratio. Below is a description of our site and our proposal for the planting of 4 new trees to replace the 2 that would be removed. **We submitted the application for approval for the removal separately. This is the replanting proposal and assumes the approval of removal.**

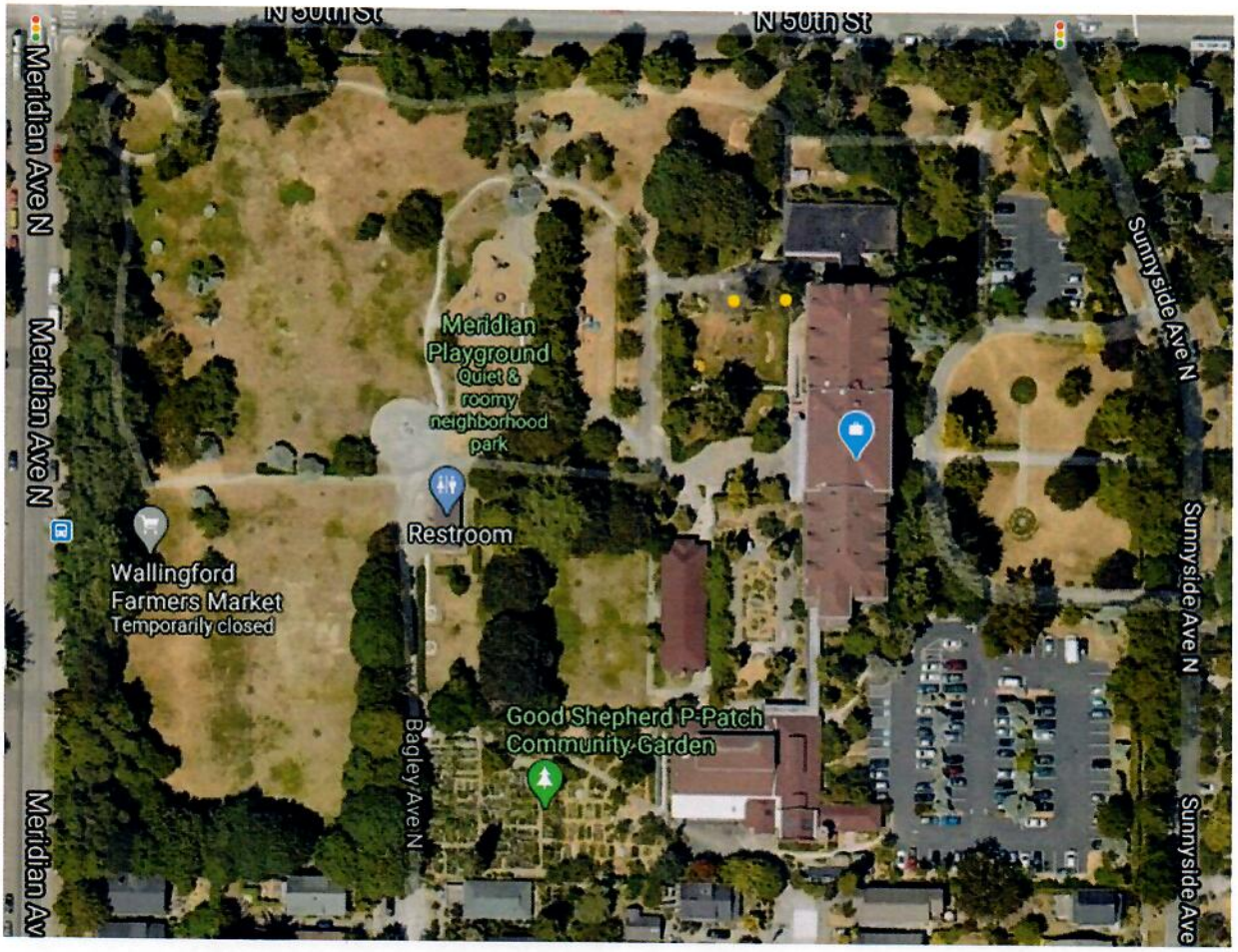
Replanting proposal:
The Good Shepherd Center is a City of Seattle Landmark, the controls for which were designated by Seattle City Ordinance 111882. Regarding the grounds, the controls indicate the preservation of the site and the formal gardens character of the site.

The two horse chestnuts to be removed were probably planted before 1929. The photo is not of great quality, but one can make out trees in the same locations (designated by yellow dots) as the existing horse chestnuts and assume they are the same trees. There is no apparent change in subsequent aerial photos. We know of no other photos or records of these trees before the mid-1970s. The trees are to the west of the main building creating a line between an apparent formal garden to the south of them and a lawn area surrounded by a horseshoe arrangement of trees to the north of the building. In 1953 an addition, now called the North Annex, was built in the lawn area along with a garage

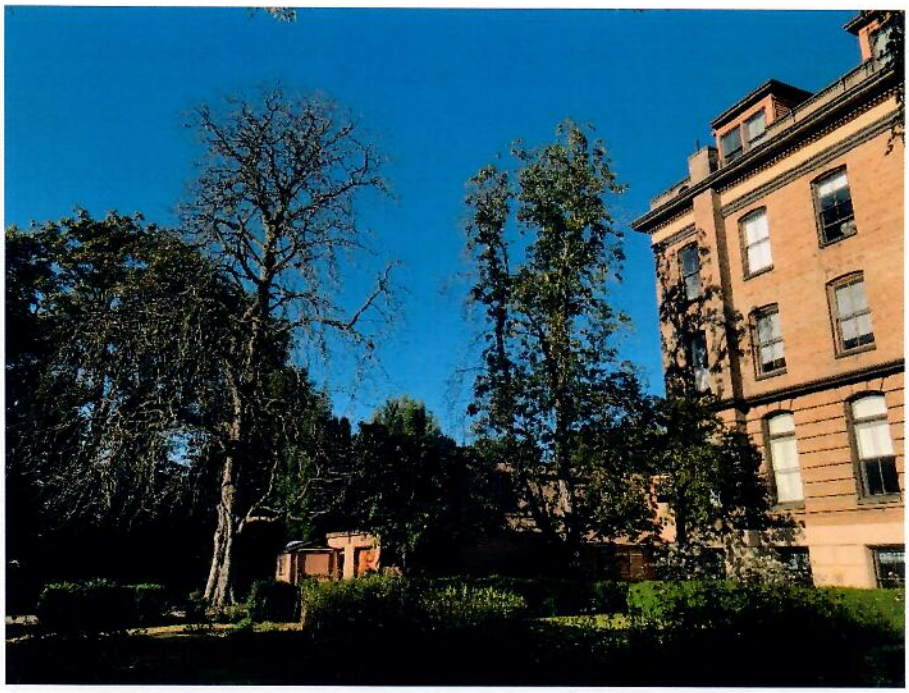


and driveway on the north side of the horse chestnuts. The garage and driveway were built on top of the roots of the horse chestnuts. Those 2 buildings broke up the spatial relationship that existed previously that may have been defined in part by the horse chestnuts, therefore the removal of the trees will not significantly change the spatial relationships of the surrounding area as they have existed since 1953.

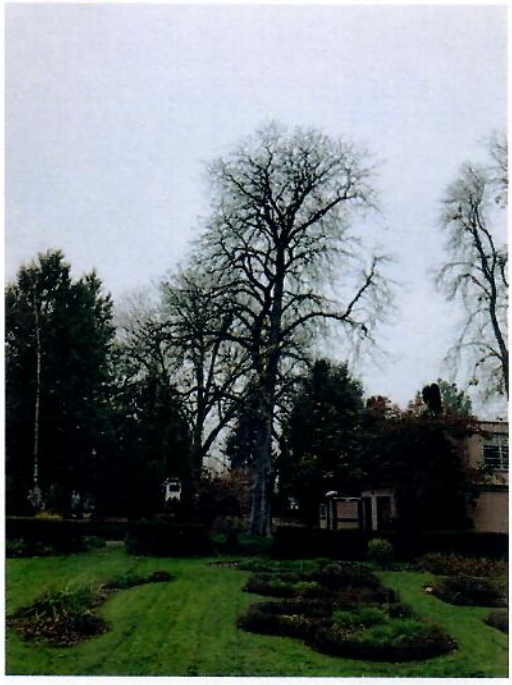
This 2018 aerial photo shows how the buildings and drive now break up the space that these trees once helped define. Since 1953 the trees have simply been nice shade trees on the north edge of the formal garden.

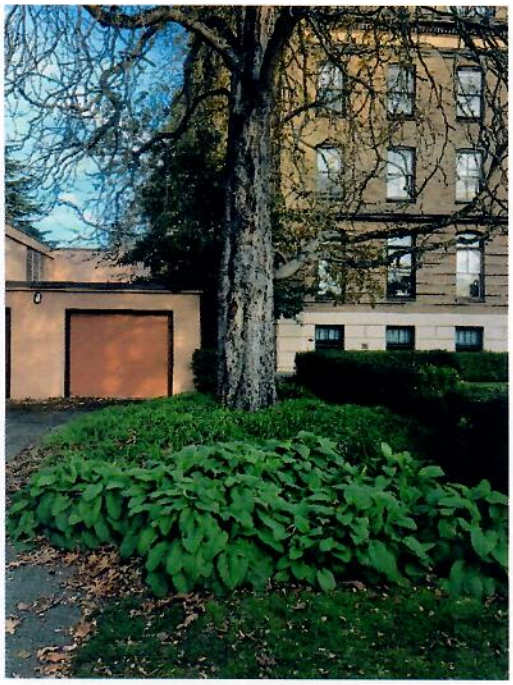


We would like to replace only one of these trees in the same approximate location. The tree on the left, TREE -23382, is in a reasonably good location for a replacement tree, but the one on the right, TREE-23383 is too close to both the sidewalk and the garage to replant in the same space.



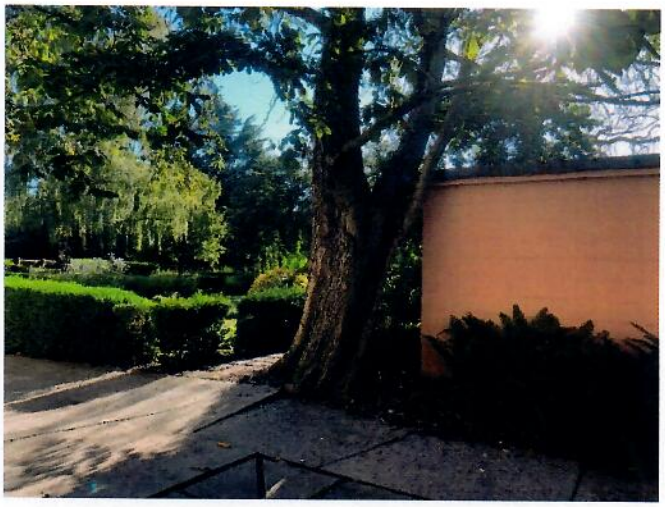
TREE-23382





Because the trees are being killed by fungi that will remain in the soil, it is inadvisable to replant with the same species. We propose planting a *Quercus garryana*, Oregon White Oak, instead of another horse chestnut in place of TREE-23382. *Quercus garryana* is comparable in size, shape, and character and is predicted to handle climate change well. Replacing TREE-23382 with an Oregon White Oak in the same location accounts for 1 of the 4 trees required.

TREE-23383



Because of the space defining garage and drive and the very close proximity of TREE-23383 to the garage and sidewalk, this tree should not be replaced in kind or location. It is no longer an appropriate location to plant a large tree. Planting further away from both would interrupt the character of the adjacent formal garden. Planting beside the garage would risk limb drop onto the building. Instead we are proposing to plant elsewhere on the grounds with space for additional large trees.

We would like to plant the other 3 replacement trees on the east side of the property in the Front Entrance Garden. This area was the public face of the Home of the Good Shepherd. We lack the records that would enable a true restoration of this area, but we do have some early photos that indicate its style. Based on those, we are planting/replanting this area to better convey the area's historic character. It had a formal structure with a mix of trees and shrubs in the beds. The beds discussed here, are the ones that would be on either side of the photographer in this 1936 photo.

Property of Museum of History & Industry, Seattle

The new trees would go in the 2 beds on either side of the gates of the pedestrian entrance from Sunnyside Ave N. We have no records or photos of these spaces to indicate what they would have contained. Aerial photos do not show them clearly enough to be informative. We presume they matched the general character of the area as a whole. Because they are to one's back as you walk through the gates and out into the lawn toward the building, they do not affect the visual framing of the building. One views these when walking between them and when looking back from the building.

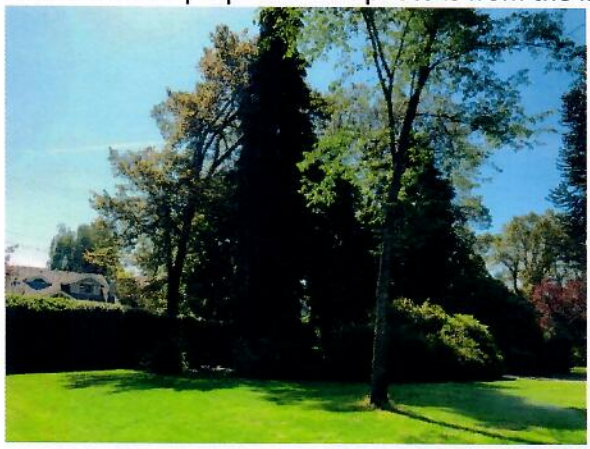
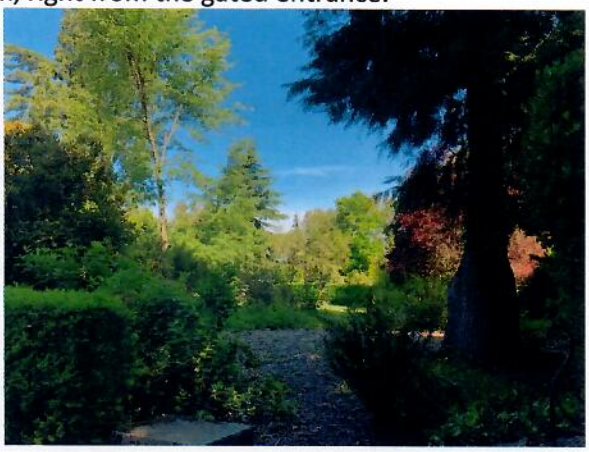
Existing in the beds are 2 Port Orford cedars, *Chamaecyparis lawsoniana*, that are approximately 80' and 55' tall. The beds are edged in *Spirea x vanhouttei* that typically grow 4'-6' tall. Both elements, we believe to be original plantings. The planting between them needs to be of a scale to balance the two, so fairly large. We would like to plant 2 Incense cedars, *Calocedrus decurens*. These would be consistent in character and scale with the Port Orford cedars. Incense cedars are native to Oregon and California on both side of the Cascades, which indicates they are adaptable to both wet/moderate and dry/hot sites. They are common in Seattle landscapes and do well. Planting them would be a hedge against climate change and maintain the existing character when the Port Orford cedars themselves succumb to age and defects. They would be period appropriate since they were available and could have been planted during the time this site was developed in the early 1900s.

In addition to the Incense cedar we would plant our native understory maple, Vine maple, *Acer circinatum*. This species balances the scale between the larger trees and the tall front spireas, is attractive and can be maintained and rejuvenated as necessary to maintain health, attractiveness, and balance.

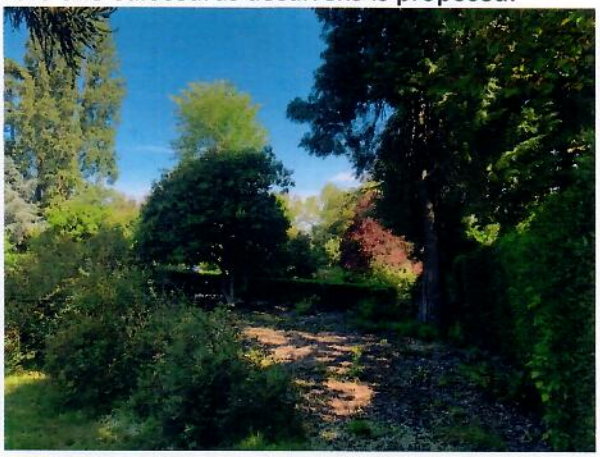
We understand that all replacement trees must be of ≥2" caliper.

More on alternate planting location along eastside of property:
The two beds are along the eastside of the property on either side of the main pedestrian entrance. Their shape is of a quarter circle, ~45' wide and 30' deep each. They are empty in the middle with *Chamaecyparis lawsoniana* in the backs of the beds. The *Calocedrus decurrens* would go slightly in front and to the sides of the two existing cedars. *Calocedrus decurrens* have relatively narrow crowns and should fit into this space nicely as well as being more disease and climate change resistant than the *Chamaecyparis lawsonianas*. The *Acer circinatums* would be planted as an "understory" tree. More photos of these beds, which are in the process of being weeded and replanted, follow.

Bed to the north of the center pedestrian entrance where one *Calocedrus decurrens* and one *Acer circinatum* are proposed: Left photo is from the lawn, right from the gated entrance.

Bed on the south side of the pedestrian entrance where one *Calocedrus decurrens* is proposed:

Attachments:
1. Site Plan (1 page)
2. Landscape plans, Existing and Proposed (2 pages)
3. Replacement Species photos (1 page)
4. Arborist Report (12 pages)
5. Basic Tree Risk Assessment (4 pages)
6. SDCI Permit Letter (1 page)
7. Seattle Parks and Recreation Revocable Use Permit (5 pages)

Removal and Replanting Site Map

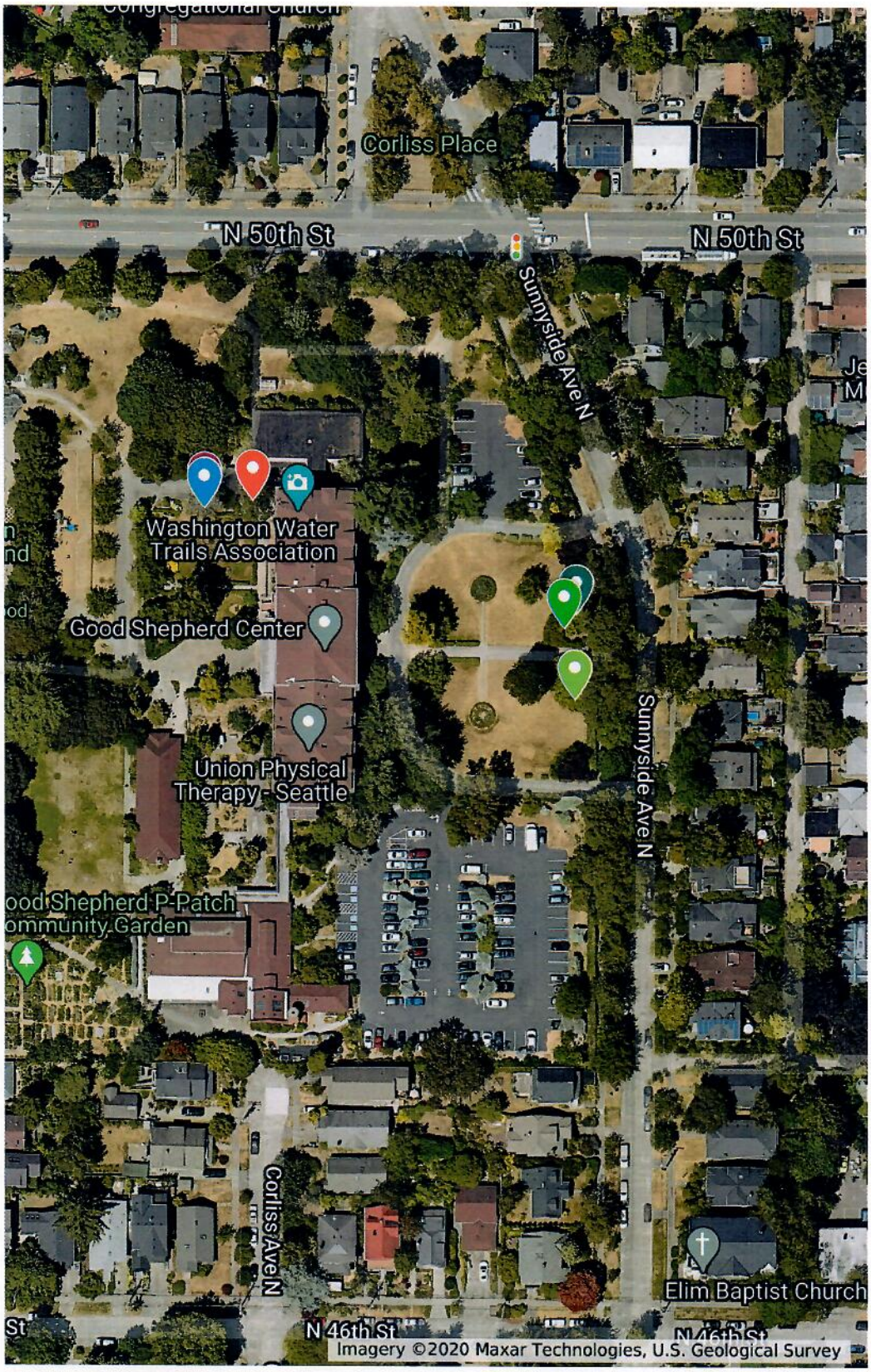
Untitled layer

- Hazard Tree - TREE-23382
- Hazard Tree - Tree-23383
- Quercus garryana to replace TREE-23382
- Calocedrus decurrens to replace TREE-23383
- Calocedrus decurrens to replace TREE-23383
- Acer circinatum to replaceTREE-23382

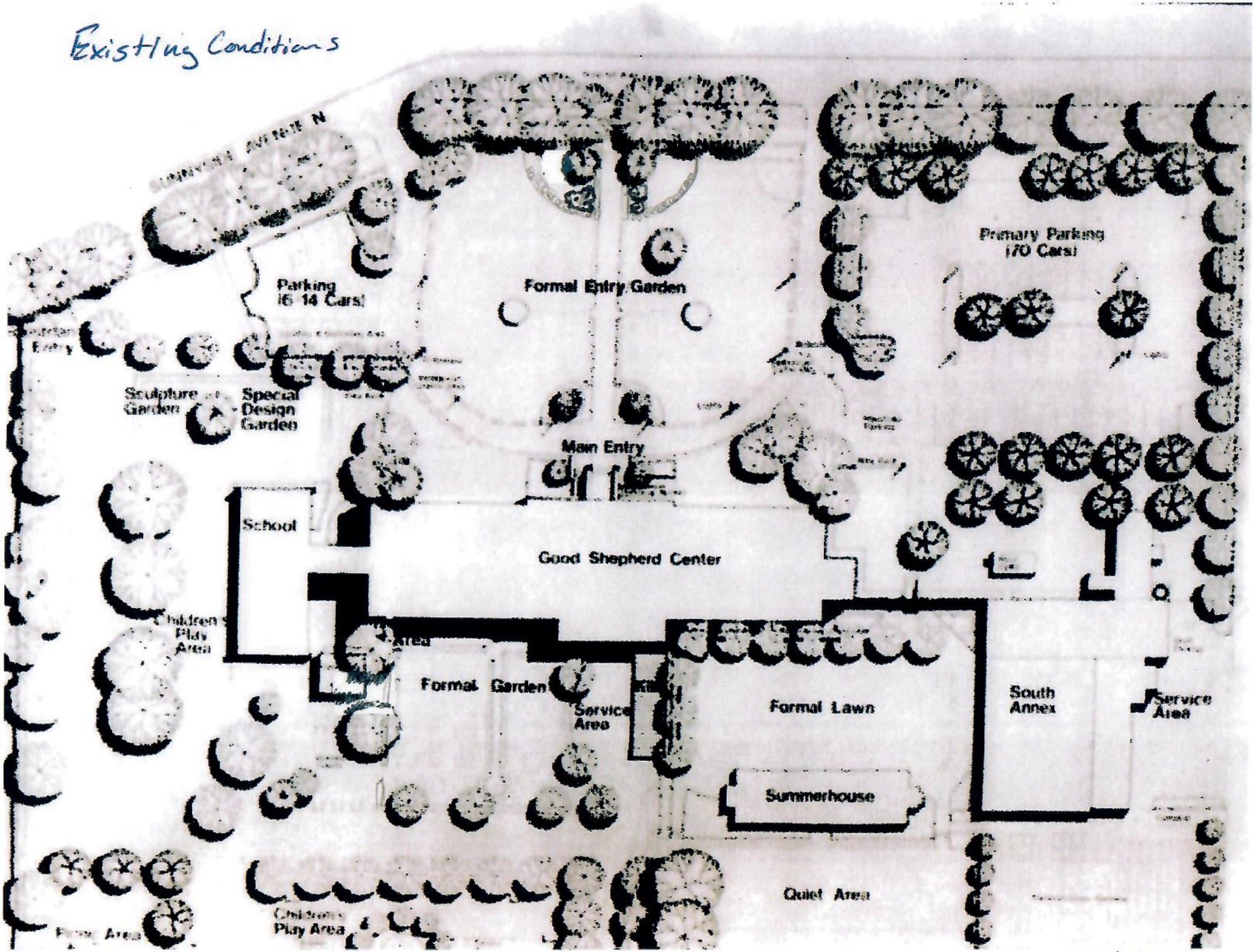
Untitled layer

Site plan for horse chestnut removal and replanting proposal.

Address:
Good Shepherd Center
4649 Sunnyside Ave N
Seattle, WA 98103
Tax parcel # 0825049102



Existing Conditions



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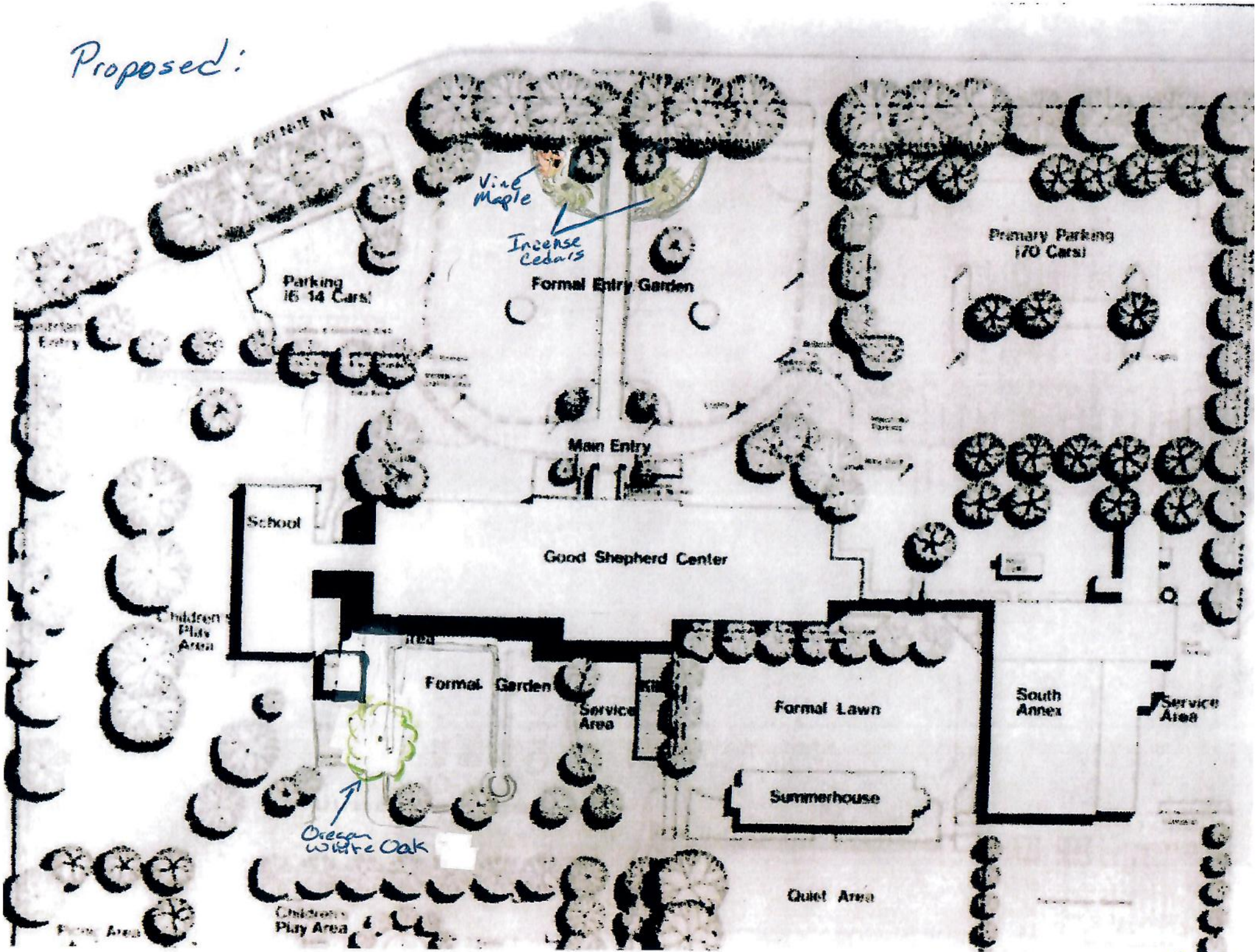
Proposed:

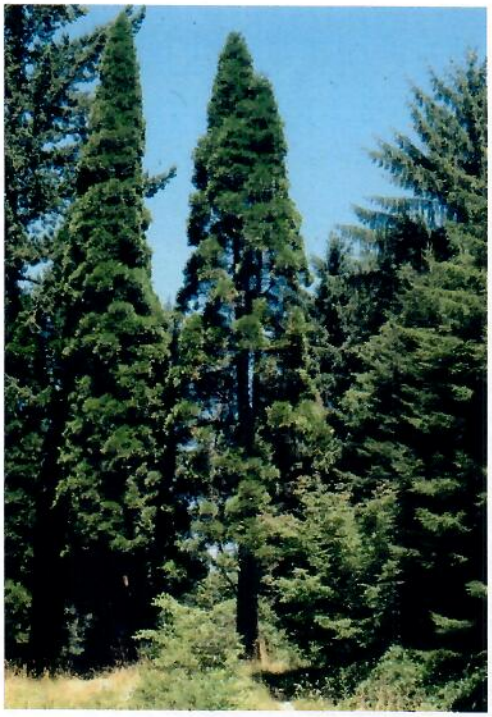


11/3/2020

Replacement Species for Good Shepherd Center replanting proposal:

Quercus garryana, Oregon White Oak or Garry Oak:
Deciduous tree, 40-90 ft

Calocedrus decurrens, Incense Cedar:
70 – 110 ft tall, narrowly columnar conifer



Acer circinatum, Vine Maple:
10 – 20 ft multi-stemmed small tree

Seattle
Parks & Recreation

Arborist Report

Date: 6-5-2020
To: Tara Macdonald, Lead Gardner - Good Shepard Center
From: Nicholas Johnson, OOC Arborist – Seattle Parks and Recreation
Subject: Tree Assessment and Hazard Evaluation

Aesculus Hipposcastanum at the Good Shepard Center

Summary and Introduction

I was asked by you to provide an opinion of the health and structural condition of two *Aesculus Hipposcastanum*, Horse Chestnut at the Good Shepard Center (GSC) in Seattle, Washington. You also asked that I provide a hazard assessment of these trees. You expressed concern about the health of these trees because they appeared to be in a state of decline. I agreed to provide a *Level 2 Limited Visual Assessment* of the trees and a hazard rating for both, because these trees are City of Seattle assets.

The GSC leases a property at 4649 Sunnyside Ave N Seattle, Washington 98103 from the City of Seattle's Finance and Administrative Services Department (FAS) where the subject trees are located on the West side of the parcel. As part of an agreement with FAS, the Seattle Department of Parks and Recreation (SPR) oversees the maintenance of the grounds on FAS's behalf which is managed and funded by the GSC.

Upon completion of my assessment I determined that both trees were in a state of decline that could be attributed to a fungal pathogen, *Kretzschmaria deusta*. Because this fungus is so destructive, hard to detect, and can cause trees to fail unexpectedly often in their entirety. It is my professional opinion that both trees should be removed.

The purpose of this report is to document the state and condition of two trees on City of Seattle Property for SPR records and provide you with information about these trees. You may share this report with the Seattle Landmarks Board for gaining a Certificate of Approval to remove these trees and with the Seattle Department of Construction and Inspections (SDCI) to apply for a Hazard Tree Removal Permit.

If you chose to remove these trees, you will need permission from the SPR Superintendent. This approval can be sought by submitting a Seattle Parks and Recreation, Revocable Non-Parks Use permit. This property is also a Designated Landmark, a Certificate of Approval from the Seattle Landmarks Board will be necessary to remove these trees. In addition, these trees are considered "Exceptional Trees" by SDCI's *Director's Rule 16-2008*. Because of this, you will also need to obtain a Hazard Tree Removal Permit from the Seattle Department of Constructions and Inspections. Note: any tree removed on a City of Seattle Property will need to be replaced at a 2:1 ratio per *Seattle's Executive Order: 03-05*.

Observations and Discussion

Upon arriving at the site, I first observed SPR Tree Inventory # TREE - 23382 has almost no *live crown*. At the base of this tree, desiccated fungal fruiting bodies were observed at the stem/root interface. I can say with a very high degree of certainty that these fungal fruiting bodies were *Kretzschmaria deusta* and some species of *Ganoderma*. It is my opinion that this tree is in a severe state of decline and it root system is structurally compromised. It is difficult to assess how much of this tree's structure has been compromised by *Kretzschmaria deusta*, my primary concern. *Kretzschmaria deusta*, is unique in its pattern of dissolving wood and confuses the instruments used to map decay in trees. The presence of this fungus and the fact the tree is almost entirely dead leads me to believe that the roots of this tree are dysfunctional/dissolved. This tree has the potential to fail in its entirety under a strong wind load within the next year. A failure of this tree could impact people, site use, a walking path, adjacent formal landscaping and a building. It is extremely difficult to predict when it will fail or what it will impact. This tree is approximately 45 feet tall and 30 inches in *DBH*.

The second tree, SPR Tree Inventory # TREE - 23383 is in much the same condition, only in an earlier state of decline. I did not observe Ganoderma fruiting bodies at the base of this tree, but I am confident that I observed *Kretzschmaria deusta* at the stem/root interface and in a surface root. Again, it is difficult to assess the extent of structural damage that this fungus has caused but it will most likely cause this tree to fail in its entirety at some point in the future. If this tree fails in its entirety it will impact a building, possibly a second and landscaping. There is still live crown throughout this tree, although it is thin and sickly looking. This leads me to believe that there are still functional roots that are in the process of being dissolved. This tree is approximately 50 feet tall and 32 inches DBH.

Analysis and Hazard Assessment

I evaluated tree # TREE - 23382 for risk based on an industry standard timeline of one year. I achieved a highest risk rating of moderate, utilizing the *International Society of Arboriculture's Risk Matrix* and a *Level 2 Limited Visual Inspection*. A moderate risk rating was achieved by my determination that it was possible that this tree could fail from the roots and had a high likelihood of impacting formal landscaping and disrupting site use with significant consequences.

I evaluated tree # TREE - 23383 for risk based on an industry standard timeline of one year. I achieved a highest risk rating of moderate, utilizing the International Society of Arboriculture's Risk Matrix and a Level 2 Limited Visual Inspection. A moderate risk rating was achieved by my determination that it was possible that this tree could fail from the roots and had a high likelihood of impacting an outbuilding with significant consequences.

I personally have inspected hundreds of tree failures that can be attributed to *Kretzschmaria deusta*. This decay organism creates unpredictable tree failures, usually occurring at the lower stem of the tree or the roots often with few outward signs of infection.

Conclusion and Recommendations

The presence of *Kretzschmaria deusta* fruiting bodies coupled with visible signs of decline strongly suggests that roots of TREE - 23382 have been severely compromised. This tree is in a severe state of decline and detracts from the formal garden's appearance. It is my professional my opinion this tree should be removed.

The presence of Kretzschmaria deusta fruiting bodies coupled with visible signs of decline strongly suggests that roots of TREE - 23383 have been and will continue to become more compromised. This tree is in a moderate state of decline and detracts from the formal garden's appearance. This tree has a heavy lean towards a historic outbuilding. It is my professional my opinion this tree should be removed.

Replacements for these trees should be highly resistant to the two observed fungi as they will persist in the soil. I would caution against these trees being climbed or rigging substantial parts of these trees from themselves. These activities may cause the trees to fail unpredictably. Removing all the debris from the site is encouraged to reduce the likelihood of these fungi from spreading, if you decide to remove these trees.

Nicholas Johnson
City of Seattle, Seattle Parks and Recreation Urban Forestry
ISA Board Certified Master Arborist PN-5662BM
ISA Certified Arborist Municipal Specialist
ISA Tree Risk Assessment Qualified
ASCA Tree and Plant Appraisal Qualified
Office: 206-684-4111 | Mobile: 206-418-8595

Glossary

Board-Certified Master Arborist - The Master Arborist or Board-Certified Master Arborist credential identifies professional arborists who have attained the highest level of aboriculture offered by the International Society of Arboriculture(ISA) and one of the two top levels in the field.

DBH - Diameter at breast height, or DBH, is a standard method of expressing the diameter of the trunk or bole of a standing tree. DBH is measured at 4.5 ft above ground in the US.

ISA Basic Tree Assessment Forms - Basic Tree Risk Assessment Form is a tool for arborists to record and categorize information while performing a basic tree risk assessment.

ISA Certified Arborist - The Certified Arborist credential identifies professional arborists who have a minimum of three years' full-time experience working in the professional tree care industry and who have passed an examination covering facets of arboriculture.

Level 2 Inspection – The Level 2 assessment is a 360-degree visual evaluation of a tree where the crown, trunk, trunk flare, above-ground roots, and site conditions are evaluated in relation to targets.

Live Crown - The live crown is the top part of a tree, the part that has green leaves.

Normal weather conditions – The long-term average value of a meteorological paramater (i.e., temperature, humidity, etc.) for a certain area. Normals are usually taken from data averaged over a 30-year period within the limits of common occurrence.

Qualified Tree Risk Assessor - A Qualified Tree Risk Assessor usually means an arborist who has attended specialized training, and passed an examination, to become "tree risk assessment qualified" through the International Society of Arboriculture (ISA).

Supporting Materials

International Society of Arboriculture's Risk Matrix

Matrix 1. Likelihood matrix.

Likelihood of Failure	Likelihood of Impact			
	Very low	**Low**	**Medium**	**High**
Imminent	Unlikely	Somewhat likely	Likely	Very likely
Probable	Unlikely	Unlikely	Somewhat likely	Likely
Possible	Unlikely	Unlikely	Unlikely	Somewhat likely
Improbable	Unlikely	Unlikely	Unlikely	Unlikely

Matrix 2. Risk rating matrix.

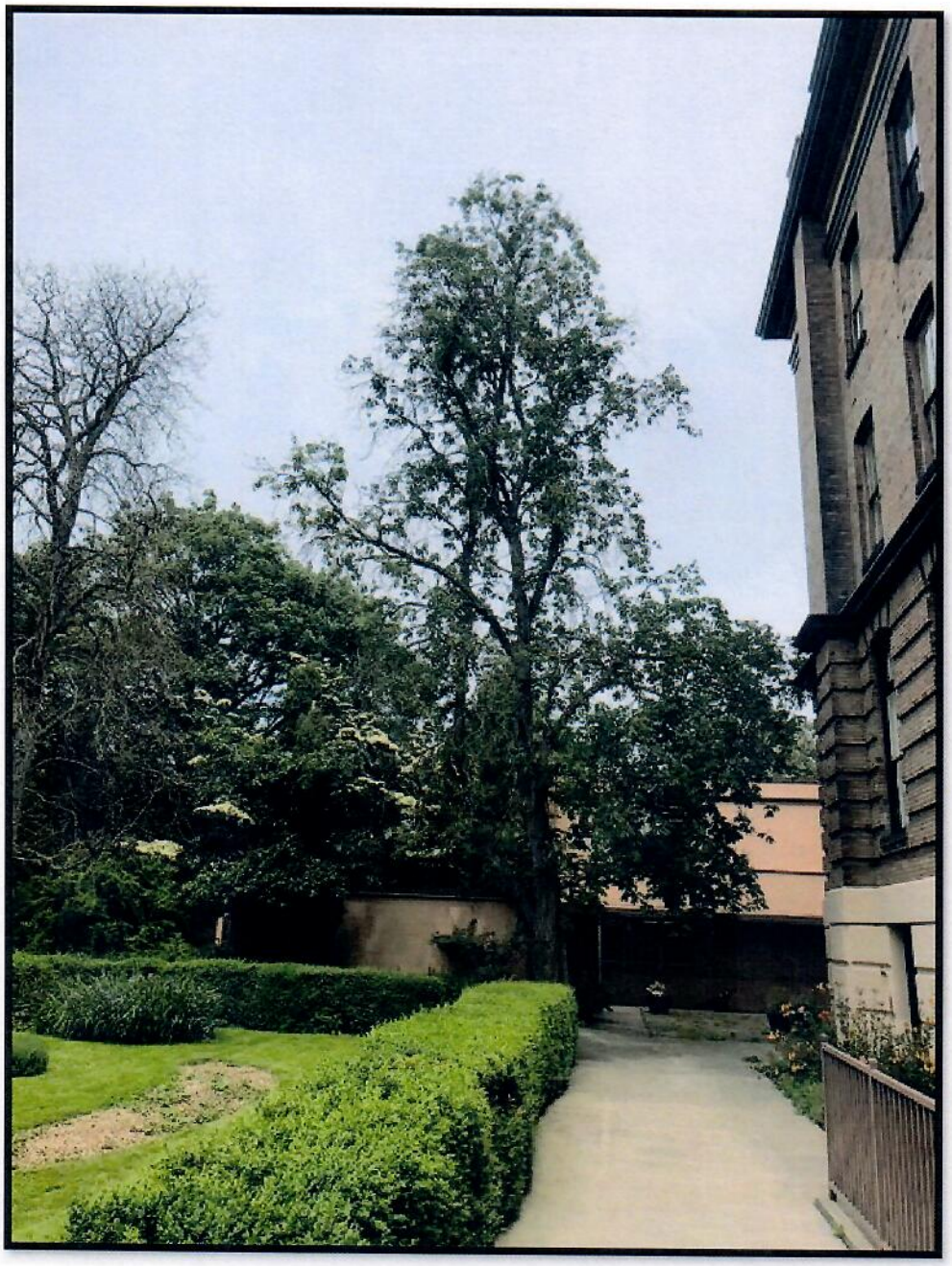
Likelihood of Failure & Impact	Consequences of Failure			
	Negligible	**Minor**	**Significant**	**Severe**
Very likely	Low	Moderate	High	Extreme
Likely	Low	Moderate	High	High
Somewhat likely	Low	Low	Moderate	Moderate
Unlikely	Low	Low	Low	Low

Site Map


TREE - 23383
TREE - 23382
MERIDIAN PLAYGROUND
DEMONSTRATION GARDEN
CORLISS PLACE
N 50TH ST
N 50TH ST
N 50TH ST
MERIDIAN AVE N
MERIDIAN AVE N
MERIDIAN AVE N
MERIDIAN AVE N
SUNNYSIDE AVE N
BAGLEY AVE N
CORLISS AVE N
19TH ST
18TH ST
7TH ST

***Kretzschmaria deusta* fruiting body at the base of TREE - 23383**

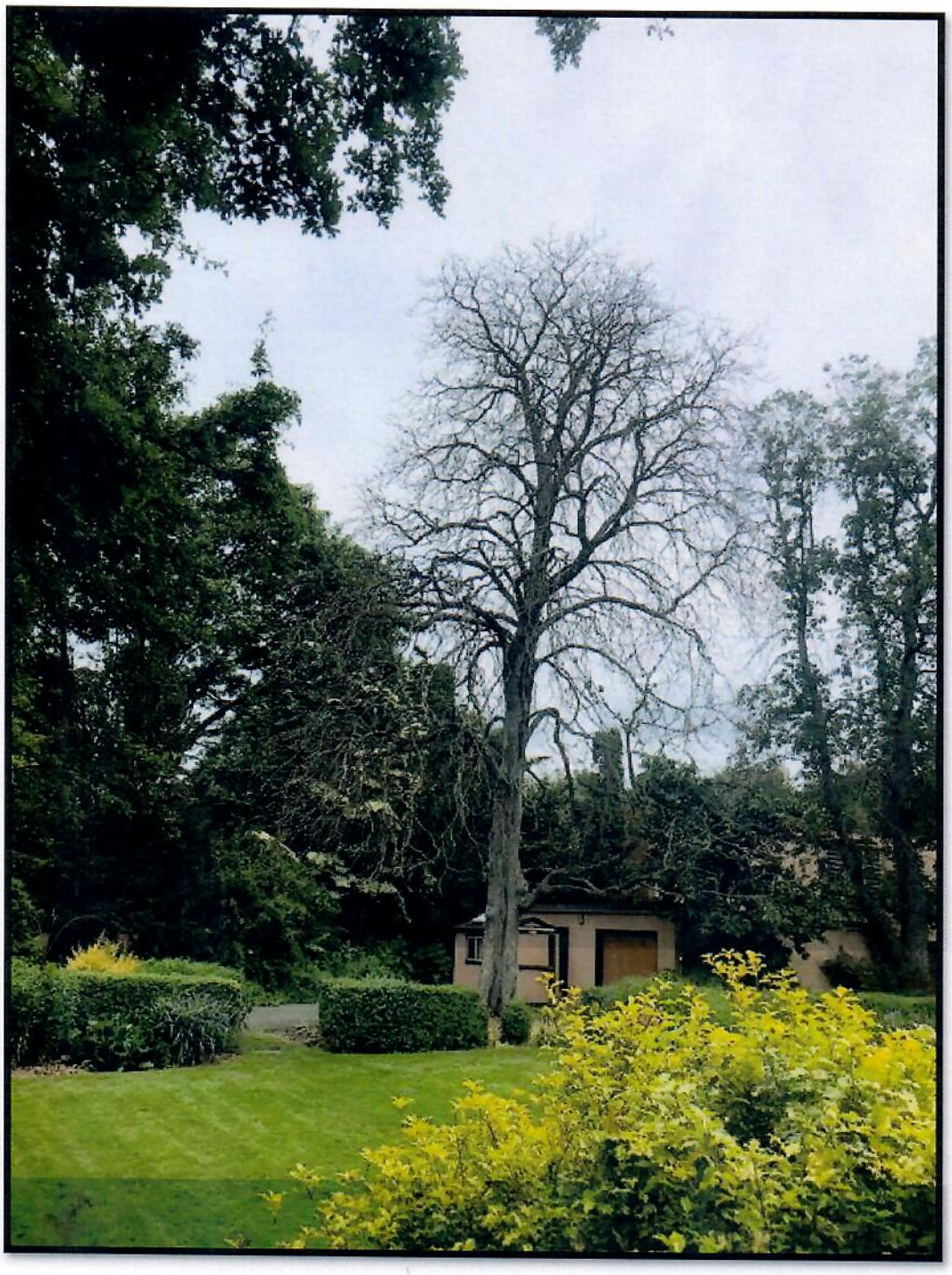
TREE – 23383



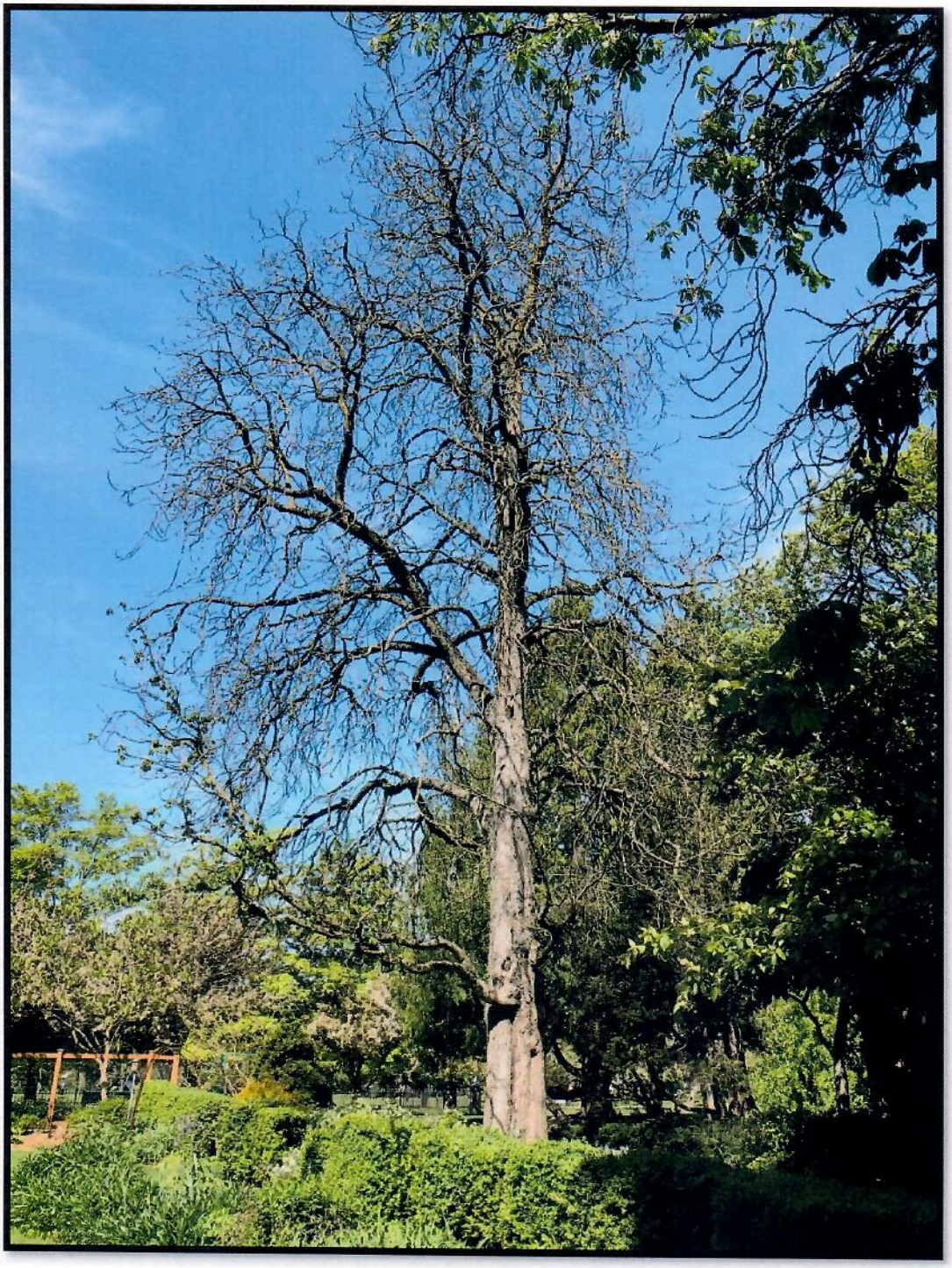
TREE – 23383

Kretzschmaria deusta fruiting body at the base of TREE – 23382

TREE – 23382



TREE – 23382



ISA Basic Tree Risk Assessment Form

Client Seattle Parks & Recreation Date 6/4/20 Time 11:30 AM
Address/Tree location 4649 Sunnyside N Seattle Tree no. 23382 Sheet 1 of 1
Tree species HORSE CHESTNUT dbh 30" Height 45' Crown spread dia. 40'
Assessor(s) TONY EGGINK / ISA certified Arborist Tools used DBH TAPE, CAMERA Time frame 1 yr

Target Assessment

Target number	Target description	Target protection	Target zone: Target within drip line	Target zone: Target within 1 x Ht.	Target zone: Target within 1.5 x Ht.	Occupancy rate (1–rare 2–occasional 3–frequent 4–constant)	Practical to move target?	Restriction practical?
1	OUT BUILDING		4	4	4		N	N
2	GARDEN		4	4	4		N	N
3	~~CHILDREN~~ HUMANS		1	1	2		N	N
4	BUILDING		1	4	4		N	N

Site Factors

History of failures _____ Topography Flat ☒ Slope ☐ _____% Aspect _____
Site changes None ☐ Grade change ☐ Site clearing ☐ Changed soil hydrology ☐ Root cuts ☐ Describe _____
Soil conditions Limited volume ☒ Saturated ☐ Shallow ☐ Compacted ☐ Pavement over roots ☒ 40 % Describe DRIVE TO OUT BUILDING
Prevailing wind direction SW Common weather Strong winds ☒ Ice ☐ Snow ☐ Heavy rain ☐ Describe _____

Tree Health and Species Profile

Vigor Low ☐ Normal ☐ High ☐ Foliage ~~None (seasonal)~~ ☒ None (dead) ☒ Normal ____% Chlorotic ____% Necrotic ____%
Pests/Biotic KRETCHMARIA DUBSTA Abiotic _____
Species failure profile Branches ☒ Trunk ☐ Roots ☐ Describe _____

Load Factors

Wind exposure Protected ☐ Partial ☒ Full ☐ Wind funneling ☐ _____ Relative crown size Small ☐ Medium ☒ Large ☐
Crown density Sparse ☐ Normal ☒ Dense ☐ Interior branches Few ☐ Normal ☒ Dense ☐ Vines/Mistletoe/Moss ☐ _____
Recent or expected change in load factors NONE

Tree Defects and Conditions Affecting the Likelihood of Failure

— Crown and Branches —

Unbalanced crown ☐ LCR ____%
Dead twigs/branches ☒ 100 % overall Max. dia. 30" DBH
Broken/Hangers Number _____ Max. dia. _____
Over-extended branches ☐
Pruning history
Crown cleaned ☐ Thinned ☐ Raised ☒
Reduced ☐ Topped ☐ Lion-tailed ☐
Flush cuts ☐ Other _____

Cracks ☐ _____ Lightning damage ☐
Codominant ☐ _____ Included bark ☐
Weak attachments ☐ _____ Cavity/Nest hole 15 % circ.
Previous branch failures ☒ 10" BRANCH Similar branches present ☐
Dead/Missing bark ☒ Cankers/Galls/Burls ☐ Sapwood damage/decay ☐
Conks ☒ Heartwood decay ☒ _____
Response growth _____

LARGER BRANCH OVER GARDEN Condition(s) of concern _____
Part Size ~~30" DBH~~ 7" Fall Distance ~~45'~~ 70'
Load on defect N/A ☐ Minor ☒ Moderate ☐ Significant ☐
Likelihood of failure Improbable ☒ Possible ☐ Probable ☐ Imminent ☐

Part Size _____ Fall Distance _____
Load on defect N/A ☐ Minor ☒ Moderate ☐ Significant ☐
Likelihood of failure Improbable ☒ Possible ☐ Probable ☐ Imminent ☐

— Trunk —

Dead/Missing bark ☒ Abnormal bark texture/color ☒
Codominant stems ☐ Included bark ☐ Cracks ☒
Sapwood damage/decay ☒ Cankers/Galls/Burls ☐ Sap ooze ☐
Lightning damage ☐ Heartwood decay ☒ Conks/Mushrooms ☒
Cavity/Nest hole ____% circ. Depth _____ Poor taper ☐
Lean ____° Corrected? _____
Response growth _____
Condition(s) of concern KRETCHMARIA D.
Part Size 30" Fall Distance 45'
Load on defect N/A ☐ Minor ☒ Moderate ☐ Significant ☐
Likelihood of failure Improbable ☒ Possible ☐ Probable ☐ Imminent ☐

— Roots and Root Collar —

Collar buried/Not visible ☐ Depth _____ Stem girdling ☐
Dead ☒ Decay ☐ Conks/Mushrooms ☒
Ooze ☐ Cavity ☐ ____% circ.
Cracks ☐ Cut/Damaged roots ☐ Distance from trunk _____
Root plate lifting ☐ Soil weakness ☐
Response growth _____
Condition(s) of concern KRETCHMARIA D.
Part Size 30" Fall Distance 45'
Load on defect N/A ☐ Minor ☒ Moderate ☐ Significant ☐
Likelihood of failure Improbable ☒ Possible ☐ Probable ☐ Imminent ☐

Risk Categorization

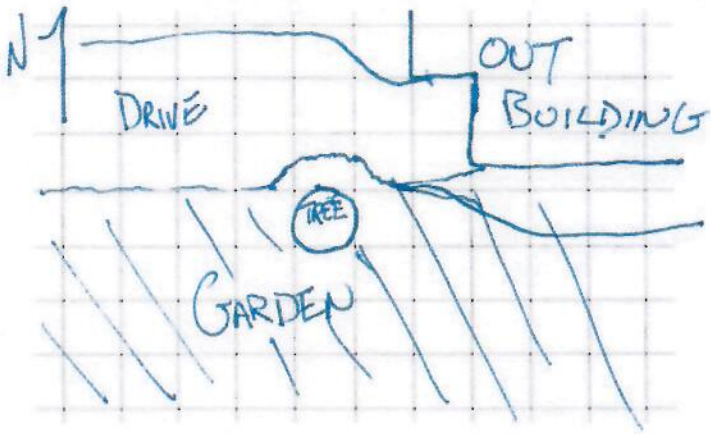
Target (Target number or description)	Tree part	Condition(s) of concern	Likelihood: Failure: Improbable	Failure: Possible	Failure: Probable	Failure: Imminent	Impact: Very low	Impact: Low	Impact: Medium	Impact: High	Failure & Impact (from Matrix 1): Unlikely	Somewhat	Likely	Very likely	Consequences: Negligible	Minor	Significant	Severe	Risk rating (from Matrix 2)
2	BRANCH	DEAD, HANGING OVER GARDEN		X					X		X					X			LOW
1				X				X			X							X	LOW
3				X			X				X							X	LOW
1	TRUNK	FAILURE OF TRUNK DUE TO DECAY		X				X			X							X	LOW
2				X					X		X					X			LOW
3				X			X				X							X	LOW
1	ROOTS	FAILURE OF ROOTS DUE TO DECAY		X				X			X							X	LOW
2				X					X		X					X			LOW
3				X			X				X							X	LOW
1	DEAD BRANCHES	STRUCTURAL INTEGRITY IS BEING LOST OVER TIME			X				X			X						X	MODERATE
2					X				X			X				X			LOW
3				X				X			X							X	LOW

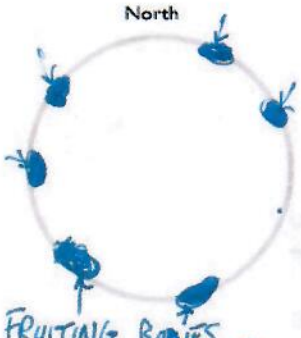
Matrix 1. Likelihood matrix.

Likelihood of Failure	Likelihood of Impact			
	Very low	Low	Medium	High
Imminent	Unlikely	Somewhat likely	Likely	Very likely
Probable	Unlikely	Unlikely	Somewhat likely	Likely
Possible	Unlikely	Unlikely	Unlikely	Somewhat likely
Improbable	Unlikely	Unlikely	Unlikely	Unlikely

Matrix 2. Risk rating matrix.

Likelihood of Failure & Impact	Consequences of Failure			
	Negligible	Minor	Significant	Severe
Very likely	Low	Moderate	High	Extreme
Likely	Low	Moderate	High	High
Somewhat likely	Low	Low	Moderate	Moderate
Unlikely	Low	Low	Low	Low





Notes, explanations, descriptions
DUE TO PRESENTS OF KRETZ. D. AT TRUNK, UPPER BRANCHING AND IN ROOTS ALSO BELAUSE ITS DEAD, THIS TREE SHOULD BE REMOVED.

Mitigation options

1. REMOVE TREE — **Residual risk** 0
2. _____ — **Residual risk** _____
3. _____ — **Residual risk** _____
4. _____ — **Residual risk** _____

Overall tree risk rating Low ☐ Moderate ☒ High ☐ Extreme ☐

Overall residual risk None ☒ Low ☐ Moderate ☐ High ☐ Extreme ☐ **Recommended inspection interval** _____

Data ☒ Final ☐ Preliminary **Advanced assessment needed** ☒ No ☐ Yes-Type/Reason _____

Inspection limitations ☒ None ☐ Visibility ☐ Access ☐ Vines ☐ Root collar buried Describe _____

Basic Tree Risk Assessment Form

Client Seattle Parks & Recreation Date 6/4/20 Time 12 PM
Address/Tree location 4649 Sunnyside N Seattle Tree no. 23383 Sheet 1 of 1
Tree species HORSE CHESTNUT dbh 32" Height 50' Crown spread dia. 40'
Assessor(s) TONY / ISA certified Arborist Tools used DBH TAPE Time frame 1 YR

Target Assessment

Target number	Target description	Target protection	Target zone: Target within drip line	Target zone: Target within 1 x Ht.	Target zone: Target within 1.5 x Ht.	Occupancy rate (1–rare 2–occasional 3–frequent 4–constant)	Practical to move target?	Restriction practical?
1	CUT BUILDING		4	4	4		N	N
2	SCHOOL		4	4	4		N	N
3	HUMAN		2	2	2		N	N
4	GARDEN		4	4	4		N	N

Site Factors

History of failures 2 FAILURES @ 10'
Topography Flat ☒ Slope ☐ _____% Aspect _____
Site changes None ☒ Grade change ☐ Site clearing ☐ Changed soil hydrology ☐ Root cuts ☐ Describe _____
Soil conditions Limited volume ☒ Saturated ☐ Shallow ☐ Compacted ☐ Pavement over roots ☒ 70 % Describe WALK + BUILDING
Prevailing wind direction SW Common weather Strong winds ☒ Ice ☐ Snow ☐ Heavy rain ☐ Describe _____

Tree Health and Species Profile

Vigor Low ☒ Normal ☐ High ☐ Foliage None (seasonal) ☐ None (dead) ☐ Normal 60 % Chlorotic ____% Necrotic 40 %
Pests/Biotic KRETZ. MARIA D. Abiotic _____
Species failure profile Branches ☒ Trunk ☐ Roots ☐ Describe _____

Load Factors

Wind exposure Protected ☐ Partial ☒ Full ☐ Wind funneling ☒ NEXT TO SCHOOL Relative crown size Small ☐ Medium ☒ Large ☐
Crown density Sparse ☒ Normal ☐ Dense ☐ Interior branches Few ☐ Normal ☒ Dense ☐ Vines/Mistletoe/Moss ☐ _____
Recent or expected change in load factors _____

Tree Defects and Conditions Affecting the Likelihood of Failure

— Crown and Branches —

Unbalanced crown ☐ LCR ____%
Dead twigs/branches ☒ 40 % overall Max. dia. _____
Broken/Hangers Number _____ Max. dia. _____
Over-extended branches ☐
Pruning history
Crown cleaned ☐ Thinned ☐ Raised ☒
Reduced ☐ Topped ☐ Lion-tailed ☐
Flush cuts ☐ Other _____
CO-DOM @ 6' LEANS OVER OUT BUILDING
Part Size 13" Fall Distance 40'
Load on defect N/A ☐ Minor ☐ Moderate ☒ Significant ☐
Likelihood of failure Improbable ☒ Possible ☐ Probable ☐ Imminent ☐

Cracks ☐ _____ Lightning damage ☐
Codominant ☒ _____ Included bark ☒
Weak attachments ☐ _____ Cavity/Nest hole 15 % circ.
Previous branch failures ☐ _____ Similar branches present ☐
Dead/Missing bark ☒ Cankers/Galls/Burls ☐ Sapwood damage/decay ☒
Conks ☒ Heartwood decay ☒ KRETZ. D.
Response growth OLD GROWTH BUT NOT VIGOROUS
Condition(s) of concern _____
Part Size _____ Fall Distance _____
Load on defect N/A ☐ Minor ☐ Moderate ☐ Significant ☐
Likelihood of failure Improbable ☐ Possible ☐ Probable ☐ Imminent ☐

— Trunk —

Dead/Missing bark ☒ Abnormal bark texture/color ☒
Codominant stems ☒ Included bark ☒ Cracks ☐
Sapwood damage/decay ☒ Cankers/Galls/Burls ☐ Sap ooze ☐
Lightning damage ☐ Heartwood decay ☒ Conks/Mushrooms ☐
Cavity/Nest hole 20 % circ. Depth 6" Poor taper ☐
Lean 20° Corrected? YES
Response growth TRUNK FLARE SHOWS PREVIOUS GROWTH
Condition(s) of concern ~~EROSION~~ CAVITY
Part Size 16" Fall Distance 40'
Load on defect N/A ☐ Minor ☒ Moderate ☐ Significant ☐
Likelihood of failure Improbable ☒ Possible ☐ Probable ☐ Imminent ☐

— Roots and Root Collar —

Collar buried/Not visible ☐ Depth _____ Stem girdling ☐
Dead ☐ Decay ☒ Conks/Mushrooms ☒
Ooze ☐ Cavity ☒ 3 % circ.
Cracks ☐ Cut/Damaged roots ☒ Distance from trunk _____
Root plate lifting ☐ Soil weakness ☐
Response growth OLD SIGNS
Condition(s) of concern KRETZ. D. PRESENT
Part Size 32" Fall Distance 50'
Load on defect N/A ☐ Minor ☐ Moderate ☒ Significant ☐
Likelihood of failure Improbable ☒ Possible ☐ Probable ☐ Imminent ☐

Risk Categorization

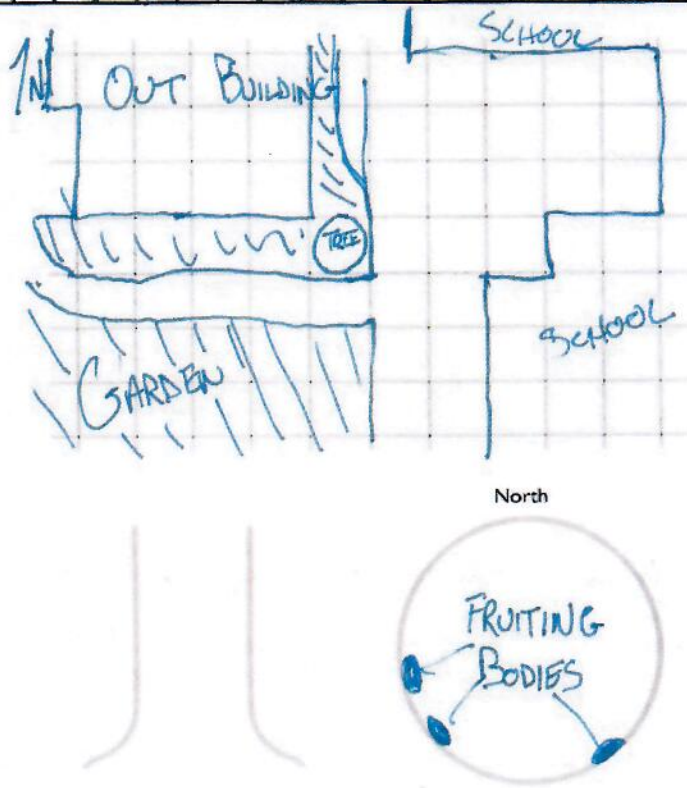
Target (Target number or description)	Tree part	Condition(s) of concern	Likelihood: Failure: Improbable	Failure: Possible	Failure: Probable	Failure: Imminent	Impact: Very low	Impact: Low	Impact: Medium	Impact: High	Failure & Impact (from Matrix 1): Unlikely	Failure & Impact: Somewhat	Failure & Impact: Likely	Failure & Impact: Very likely	Consequences: Negligible	Consequences: Minor	Consequences: Significant	Consequences: Severe	Risk rating (from Matrix 2)
1	Co-Dom	INCLUDED BARK, CAVITIES NEAR UNION		X						X		X						X	MODERATE
2				X			X				X							X	
3				X			X				X							X	
1	TRUNK	CAVITY @ 6'		X					X		X							X	
2				X				X			X							X	
3				X			X				X							X	
1	ROOTS	KRETZ. D PRESENT		X					X		X							X	
2				X				X			X							X	
3				X			X				X							X	
1	DEAD BRANCHES	DECREASED STRUCTURAL INTEGRITY OVER TIME			X					X			X			X			MODERATE
2					X				X			X				X			LOW
3					X			X			X							X	LOW

Matrix 1. Likelihood matrix.

Likelihood of Failure	Likelihood of Impact			
	Very low	Low	Medium	High
Imminent	Unlikely	Somewhat likely	Likely	Very likely
Probable	Unlikely	Unlikely	Somewhat likely	Likely
Possible	Unlikely	Unlikely	Unlikely	Somewhat likely
Improbable	Unlikely	Unlikely	Unlikely	Unlikely

Matrix 2. Risk rating matrix.

Likelihood of Failure & Impact	Consequences of Failure			
	Negligible	Minor	Significant	Severe
Very likely	Low	Moderate	High	Extreme
Likely	Low	Moderate	High	High
Somewhat likely	Low	Low	Moderate	Moderate
Unlikely	Low	Low	Low	Low



Notes, explanations, descriptions

DUE TO THE PRESENTS OF KRETZ.D., LOW VIGOR AND PROXIMITY TO SCHOOL, TREE SHOULD BE REMOVED.

Mitigation options

1. REMOVAL — **Residual risk** NONE
2. _____ — **Residual risk** _____
3. _____ — **Residual risk** _____
4. _____ — **Residual risk** _____

Overall tree risk rating Low ☐ Moderate ☒ High ☐ Extreme ☐

Overall residual risk None ☐ Low ☐ Moderate ☐ High ☐ Extreme ☐ **Recommended inspection interval** _____

Data ☒ Final ☐ Preliminary **Advanced assessment needed** ☒ No ☐ Yes-Type/Reason _____

Inspection limitations ☒ None ☐ Visibility ☐ Access ☐ Vines ☐ Root collar buried Describe _____

City of Seattle
Seattle Department of Construction and Inspections
Applicant Services

Historic Seattle PDA
Good Shepherd Center
4649 Sunnyside Ave N, #226
Seattle, WA 98103

Re: Project #000182-20TA

Hazard Tree Removal Determination

Review Type TREE
Project Address 4649 SUNNYSIDE AVE N
SEATTLE, WA 98103
Contact Email taram@historicseattle.org
SDCI Reviewer Deborah McGarry
Reviewer Phone (206) 727-8624
Reviewer Email deborah.mcgarry@seattle.gov
Owner

Date August 13, 2020
Contact Phone (406) 546-2451

Address Seattle Department of Construction and Inspections
700 Fifth Ave
Suite 2000
P.O. Box 34019
Seattle, WA 98124-4019

Dear Historic Seattle,

I reviewed the application to remove two exceptional horsechestnut trees at the above address. The submitted arborist report and risk assessments comprehensively document the extensive decay and decline of these two trees, leading to a risk designation of high.

SDCI approves removal of the two horsechestnut trees.

Please ensure that a copy of this letter is on-site during all tree removal operations.

Thank you.

Deborah McGarry

CITY OF SEATTLE DEPARTMENT OF PARKS AND RECREATION
300 Elliott Avenue West, Suite 100
Seattle, WA 98119

PERMIT NO. 2020-57
NAME OF PERMITTEE: TARA MACDONALD/HISTORIC SEATTLE
ADDRESS: 4649 SUNNYSIDE AVE N SEATTLE, WA 98103
CONTACT(S): TARA MACDONALD
PHONE: _406-546-2451 EMAIL: TARAM@HISTORICSEATTLE.ORG

LOCATION OF PERMIT ACTIVITY: GOOD SHEPHERD CENTER/MERIDIAN PLAYGROUND
PARCEL NUMBER/ADDRESS: 0825049102/4649 SUNNYSIDE AVE N.

PERMISSION IS HEREBY GRANTED TO THE ABOVE-NAMED PERMITTEE TO:
Occupy park property, specifically a portion Parcel No. 0825049102/4649 Sunnyside Ave N to remove to tree's that are dying and replace with healthy trees.

Attachments

Attachment A: CONDITIONS / REQUIREMENTS	**Attachment D: REVISED REMOVAL PROPOSAL AND VEGITATION & SAFETY LAYOUT**
Attachment B: PERMIT APPLICATION / SDCI Hazard Tree Removal Determination/ Certificate of Insurance	**Attachment E: PARKS - ARBORIST REPORT**
Attachment C: PURPOSE STATEMENT/SCOPE OF WORK	**Attachment F: ISA BASIC TREE RISK ASSESSEMENT**

For Official Use Only

Application Fee: $200.00 Received
Permit Issuance Fee: WAIVED (See Section 4) Received:_____
Inspection and Review Fee(s):_____ **(See Section 4) Received:**_____
PERMIT STATUS: _____**Issued** _____**Denied Date:** _____ **Initials:** _____

Tara MacDonald, Lead Gardener Tara MacDonald 9/28/2020
Permittee's Name and Title Signature Date

Approved by Michele Finnegan by Email 10/8/2020
Superintendent or Designee Date

Disclaimer:

This Permit is wholly of a temporary nature, vests no permanent rights to holder whatsoever is granted to Permittee only and cannot be transferred. This Permit is subject to revocation by the Department of Parks and Recreation upon thirty (30) days written notice mailed to Permittee at the address shown above.

REVOCABLE PERMIT TO USE OR OCCUPY PARK PROPERTY Permit No. 2020-57
ATTACHMENT A - Conditions

1. PERMIT PURPOSE
   To allow the Permittee to access and temporarily occupy a portion of Park property for the removal of two trees on the grounds of the Good Shepherd Center. Once the trees are removed they will be replaced 2-1 ration Seattle Executive Order: 03-05. See attached Addendum C, D, E, F for a Map and details of this work and how it will carried out.

   Tree Protection
   Prior to work the Permittee must evaluate a tree Protection Plan and possible tree impacts with a park's arborist who will define the level and areas that tree protection is required. A park's arborist can be reached at 206-386-1688. The following are general guidelines and procedures for tree protection.
   a. Stay as far away from the tree trunks as possible.
   b. Place plywood underneath the equipment if pivoting near the trees, to minimize soil disturbance.
   c. Tree protection must adhere to Parks specifications. No work shall occur within any tree protection zone without permission from a Parks arborist. Work within a tree protection zone will be overseen by a park's arborist.
   d. The area inside a tree protection zone shall not be used at any time for equipment storage, stockpiling of materials or parking.
   e. Tree protection shall not be moved without the consent of a park's arborist.
   f. Any trees that conflict with Permittee deployment must be identified by the Permittee and brought to the attention of a park's arborist. The arborist will review and define the necessary maintenance needed to reduce impact to the tree(s) before the commencement of construction activity.
   g. Any trees lost due to construction activity, whether the tree's demise is immediate or imminent due to Permittee's activities shall be replaced at a ratio of 2:1 with a species 2" or greater in caliper and as selected by a park's arborist. The replacement tree(s) must be maintained per the requirements noted in Section 5, "Restoration"

2. PERMIT AREA
   Permit Area is a portion of park property, specifically The Good Shepherd Center 4649 Sunnyside Avenue North, Seattle, WA 98103, as depicted on **Attachment D**, made a part of this permit by reference.

3. PERMIT PERIOD
The Permittee has requested 3 consecutive days to complete the project between October 5, 2020 to December 31,2020. This permit will be valid until December 31, 2020.

Work on Park property is not allowed until the Permit is fully signed and issued to the Permittee. This Permit is effective as of date of issuance and is valid until revoked. If the Permittee requires additional work days or a change of work schedule outside of the stated Permit Period, the Permittee must send a written request to Real Property Agent Tamara Coleman (tamara.coleman@seattle.gov) at Property Management for change approval at least 48 hours in advance.

Permittee must notify Parks and Recreation Department Crew Chief Colleen Hackett at 206-684-4958 and the Parks Work line at 206-684-7250 not less than 48 hours (two working days) prior to starting work.

4. PERMIT FEE / OTHER APPLICABLE FEES
The application fee is $200.00. In accordance with the prevailing fee schedule, as established by ordinance, the Daily Use Fee is $325.00 for one day, or $250.00 per day for multiple days. In this case the Daily Use Fee has been waived Per recommendation of Parks Arborist.

In addition to standard Permit Fees, and if needed, the Permittee is subject to inspection and review fees associated with this project for Park Staff time spent on this project. The per hour charge for staff review time is $130.00 per hour in excess of (2) two hours, and $200.00 per hour for inspection and monitoring.

5. RESTORATION
Permittee must remove all construction debris and equipment from Park property immediately after work concludes. Hard surfaces must be restored to before construction condition, or better, as recorded on the digital record made prior to construction, contained in the electronic file.

6. INSPECTIONS
Permit issuance includes one (1) on-site inspection. In accordance with the prevailing fee schedule, as established by ordinance, additional on-site inspection charges are $200 per hour with a one-hour minimal fee for each inspection. Inspection of the worksite for this project will be necessary under this permit and billed to the Permittee within 30 days after each occurrence.
A final inspection of the worksite must be scheduled with a Parks Inspector at 206-684-7250 within 24 hours of project completion.

7. OTHER PERMITS / APPROVALS / REGULATIONS
Permittee, its (sub)contractors or agents, must obtain all necessary permits and approvals required by applicable State and City laws, ordinances, rules and regulations to perform any work on park property. Permittee is responsible for locating and avoiding damage to any existing improvements on the site, including park furniture, lighting, irrigation, gates, doors or fences. If necessary, the Permittee will provide a pedestrian control plan.

8. INDEMNIFICATION
   Permittee hereby agrees to indemnify, defend, and hold the City harmless from any and all losses, claims, actions, costs, damages and expenses (including reasonable attorney's fees) arising out of or resulting from the acts, errors or omissions of Permittee, its agents, contractors or employees in connection with any activities authorized by this permit, but only to the extent such losses, claims, actions, costs, damages or expenses are caused by the negligence or intentional acts of Permittee, its authorized agents, contractors or employees.

9. INSURANCE / LIABILITY
   Permittee shall, at no cost to the City, maintain, at all times during the Permit Period, Commercial General Liability (CGL) and Automobile Liability insurance with minimum limits of $1,000,000 each occurrence combined single limit bodily injury and property damage. CGL and Automobile liability insurance shall include "The City of Seattle" as an additional insured for primary and non-contributory limits of liability with the CGL insurance policy including an ISO CG 20 12 additional insured endorsement or its equivalent designated or blanket additional insured policy provision.

   Certification of Insurance, including an attached actual copy of the CGL additional insured policy provision, shall be issued to "The City of Seattle, c/o Department of Parks and Recreation, 300 Elliott Avenue West, Suite 100, Seattle, WA 98119" and approved by the City prior to the issuance of the Permit.

10. PUBLIC SAFETY
    Permittee shall provide, when and if necessary, such safety and security measures as deemed appropriate to protect public safety, including, but not limited to, vehicle, bicycle or pedestrian barricades, fencing, flaggers, or other traffic controls including sufficient warning signs for same for Park users, as necessary, and to prevent access to the site by the public at times when the job site is not occupied by responsible staff. Permittee assumes full responsibility for the sufficiency of such measures. If an emergency should occur, Permittee shall notify Parks Property Management at (206) 684-0767 or, if after 5:00 pm. or on weekends, the Parks Duty Officer at (206) 915-6249 (cell phone) or (206) 982-4583. If the emergency involves pipe or water infrastructure the Permittee shall contact Seattle Public Utilities at (206) 386-1800.

11. LIENS AND ENCUMBRANCES
    Permittee shall keep the premises free and clear of any liens and encumbrances arising out of the use or occupancy of the premises by Permittee. At the City's request, Permittee shall furnish City with written proof of payment of any item which, if not paid, would or might constitute the basis for such a lien on the premises.

12. PERSONAL PROPERTY
    Placement and/or storage of personal property, equipment, vehicles, or materials of any kind on park property are at Permittee's sole risk.

13. HAZARDOUS SUBSTANCES

The Permittee shall be responsible for complying with all federal, state and local laws and regulations in regard to the handling and disposing of hazardous substances that the Permittee brings onto or uses on park property. In no instance, shall the Permittee allow the release or disposal of hazardous substances on park property.

14. BEST MANAGEMENT PRACTICES

Permittee and Permittee's (sub)contractor(s) shall adhere to all best management practices and take such action as is necessary to protect public safety, park vegetation, minimize erosion, water run-off, and slide hazard within or adjacent to Permit Area. The Permittee will consult with Park's Forrester regarding the protection of trees if necessary.

15. STANDARDS

Permittee shall perform the requirements of this permit to the satisfaction of the Department of Parks and Recreation according to reasonable and objective standards. Permittee, its (sub) contractor(s) or agents shall call Parks Property Management at (206) 684-0767 for approval upon completion. Any and all damage or injury done to the City facilities caused by Permittee's activity must be repaired to the City's satisfaction / standards, within 30 days of the completion of the work, at the sole expense of the Permittee.

16. CAPTIONS

The captions in this permit are inserted for convenience of reference and in no way define, describe, or limit the scope or intent of this permit or any of its provisions.